Types of Mosquitoes in Pima County

There are two main types of mosquitoes in Pima County — stagnant water mosquitoes and intermittent water mosquitoes.

Stagnant Water Mosquitoes

Importance

The mosquitoes that carry Encephalitis are in this group.

Typical breeding sites

Tin cans, old tires, decorative ponds, bird baths, horse troughs, overgrown ditches, unmaintained swimming pools, open septic tanks, sewage and industrial waste ponds.

Breeding site selection

Eggs are laid in cluster directly on the surface of the standing water. There are continuous reproduction cycles as long as water stands and conditions remain favorable.

Adult habits

Adults are seldom seen in daytime and rest in shrubbery and other cool sheltered places. They are active and bite during nighttime hours, indoors and out.

Intermittent Water Mosquitoes

Importance

Vicious biters, responsible for most mosquito nuisance complaints.

Typical breeding sites

Irrigation water or rainwater that ponds for more than three days, such as over-irrigated or poorly leveled yards and pastures, tail-water ponds, desert ponds, stock tanks, backed up washes and flood control drainage areas.

Breeding site selection

Eggs are laid on soil in areas where water has ponded; they will lay dormant until flooded by water from the next rain or irrigation. Only one generation is produced per flooding.

Adult habits

Rests in open weeds and grass during daytime, but will rise up and bite if disturbed. They are most active at sundown when they attack people and animals in swarms.

About Mosquitoes

Mosquitoes have a serious impact on the health, comfort, and economic welfare of people. Some species transmit diseases to people and animals. In Pima County, there is particular concern with mosquito borne encephalitis (sleeping sickness). Large numbers of mosquitoes can interfere with outdoor work and recreation, lower property values, and cause livestock to lose weight.

Responsibility

Everyone is responsible for eliminating and preventing mosquito breeding on their property. Arizona Revised Statute 36-601 (A.1) states:

> Any condition or place in populous areas which constitutes a breeding place for mosquitoes which are capable of carrying and transmitting disease-causing organisms to any person, is declared a public nuisance, dangerous to the public health.

Violations of the code are punishable by law.

For general information or assistance, please contact:

Consumer Health and Food Safety
150 W. Congress
Tucson, Az 85701
740-2760

Text adapted with permission from the Maricopa County Vector Control publication, "The Mosquito Problem."

12/94 Health Planning Services

Controlling the problem of

in Pima County

Mosquito Control
What You Can Do

The best way to eliminate mosquitoes is to **eliminate their breeding sites.**

Standing Water
Get rid of all standing water on your property. Discard unnecessary containers, including old tires, that may catch and hold water. Drain horse troughs, bird baths, small ponds, etc. on a weekly basis or add mosquito fish to any permanent body of water. Repair any water leak, hose, sprinkler system, or cooler that may cause water to pond.

Close septic tanks tightly. Be sure that the cleanout plug or inspection hatch is not open even a crack. Drain unused coolers, water closets, wading pools, or any unused equipment that may be holding water accessible to mosquitoes.

Irrigation
Control your irrigation. Fill low spots and level your yard or pasture. Don't over-irrigate. Water should never stand more than three days, even in tree wells. Ditches and culverts should be designed to drain out when not in use. Ditch banks and tailwater ponds should be kept free of vegetation and floating debris. If underground irrigation system does not drain, prevent mosquito entrance by closing valves and providing tight covers or screens on standpipes between irrigations.

Treatment of Mosquito Breeding Site

Source reduction is generally preferred, however, treatment may be needed on a temporary problem or on a site that cannot be eliminated.

Oil
An oil film on the water surface has been the traditional method of controlling mosquito larva and pupa. Light oils such as mineral, diesel, and kerosene work better, are easier to use and less messy than heavy oils. Commercial larviciding oil is still available in drum quantities. A light film sprayed over water gives much better coverage than just pouring the oil in. Retreatment may be needed each week in permanent water. Don't just treat it once and forget it.

Chemical larvicide
With the development of safe, effective chemical and bacterial larvicides, the popularity of the more environmentally damaging oil larvicides has been decreasing. Trade names of some of the products now available from chemical suppliers include Altosid, Arosurf, Bactimos, Teknar, and Vectobac. These come in various formulations suitable for a wide range of applications.

Please contact a licensed pest control operator or our office (listed on the back of this publication) prior to applying any chemicals.

The Four Distinct
Stages of the Mosquito's Life Cycle

Eggs
Laid on water or on the ground where they remain until flooding occurs. Shortly after they are in water, the eggs hatch into larvae.

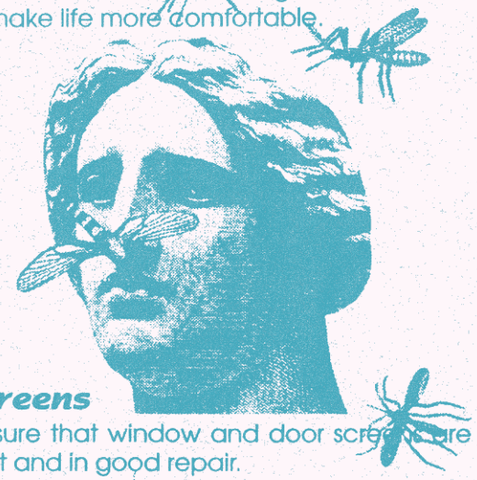
Larva
Initially, is very small, but rapidly grows to a size of 1/4 inch or longer. The larger ones are easily seen wiggling in the water or resting at the surface, breathing through their air tubes. They will dive at the least disturbance of the water, even if a shadow is cast over them.

Pupa
Looks like a small seed resting in the water, but it will dive and move about rapidly with a jerking motion when disturbed. When fully developed, the adult will emerge from the pupal case ready to start the next generation. If the water dries up before the adult emerges, the mosquito will die.

Adult
The female is the biting insect everyone is familiar with. She generally requires a blood meal before laying eggs that will hatch. She can fly several miles, if necessary, to get it. Her life-span may be several 3 weeks to months, during which time she will lay up to 500 eggs in batches of 50 to 100. The male usually is found around the breeding site and lives on plant juices.

Treatment for Adult Mosquitoes

Killing adult mosquitoes is not as effective a method of control as elimination or treatment of the breeding site. When an outbreak occurs, however, several things can be done to make life more comfortable.



Screens
Be sure that window and door screens are tight and in good repair.

Sprays
Flying insect aerosols are effective indoors, but have a very limited effect outdoors. (Be sure to read the entire label and use accordingly.) Small power foggers or mist sprayers will provide temporary relief outdoors, but will require daily use if the source of mosquitoes is not eliminated.

Traps
Insect traps or electrocuters may help if properly placed. However, they may attract more insects to your yard or patio from other areas and add to the problem.

Repellents
Insect repellents will help if you must spend time outdoors when mosquitoes are present. Use these only according to label instructions, and remember that they can be washed off by swimming or heavy perspiration.